

## BMR 3 – Differentiation and the core curriculum

### Reading 1 – Differentiating curriculum for gifted students

#### **Rationale**

The characteristics and needs of gifted students will be as different as they are, therefore, it is difficult to generalise what an effective curriculum for gifted students will look like. Any curriculum should be just as sufficiently rigorous, challenging and coherent for gifted students as it is for all other students.

Appropriate modification of a curriculum for gifted students will include adaptation of the content, process, environment and product of the core curriculum. An appropriately differentiated curriculum will produce knowledgeable students, who have had to work hard, and can think clearly and critically.

#### **Content**

- Consists of ideas, concepts, descriptive information and facts.
- Can be modified by acceleration, compacting, variety, reorganisation, flexible pacing, more advanced concepts, abstractions, materials.
- Can be at student's own pace (to advance learning and avoid more of the same)
- Can be thematic, broad-based and integrative.
- Interdisciplinary and cross curricula approaches promote integrated understanding.

#### **Product**

- Students can be asked to demonstrate learning in a wide variety of forms that reflect both knowledge and ability to manipulate ideas.
- Can be consistent with each student's preferred learning style.
- Products should address real problems, concerns, and audiences, synthesize rather than summarise information and include self-evaluation.

#### **Management Strategies**

Educators need to give special attention to:

- Articulation
- Scope
- Sequence to avoid gaps and repetition through grade levels.
- Ensure that children are provided with the knowledge and skills that will prepare them for the future.
- Periodic evaluations of curriculum effectiveness.

#### **Principles**

- Content should include more elaborate, complex, and in-depth study of major ideas, problems and themes that integrate knowledge within and across systems of thought.
- Curricula should allow for the development and application of productive thinking skills to enable students to reconceptualise existing knowledge or generate new knowledge.
- Curricula should allow students to explore constantly changing knowledge and information and develop the attitude that knowledge is worth pursuing in an open world.
- Curricula should include exposure to and selection of appropriate and specialised resources.
- Curricula should promote self-initiated and self-directed learning and growth.
- Curricula should provide for the development of self-understanding and the understanding of one's relationship to persons, societal institutions, nature and culture.
- Evaluations of curricula should consider higher level thinking skills, creativity, and excellence in performance and products.

## **Process**

To modify process activities must:

- Be restructured to be more intellectually demanding.
- Challenged by questions that require a higher level of response, are open-ended, stimulate enquiry, active exploration and discovery.
- Encourage students to think about subjects in more abstract and complex ways.
- Encourage self-directed learning.
- Encourage higher level thinking skills.

## **Learning Environment**

Gifted students learn best in environments, which

- are receptive
- are non-judgemental
- are student-centred
- encourages enquiry and independence
- includes a wide variety of materials
- provides physical movement
- is generally complex
- connects the school experience with the greater world
- encourages questioning and creativity

## Reading 2 – Differentiation for gifted and talented students: Principles and practices

### **Rationale**

Educating gifted and talented students is to acknowledge and cater for individual differences. No two students are the same; therefore, provision will need to differ.

Differentiated learning experiences use a variety of products that require the application of higher-level processes to complex content related to the topic and core content.

### **Content**

The process of assessing individual needs and responding with appropriate learning experiences. Differentiation requires teachers to:

- Build on past achievements
- Provide opportunities for success
- Remove barriers to learning

### **Product**

Differentiation is

- provision of a variety of ways to explore curriculum content.
- provision of an array of processes for understanding and 'owning' information.
- provision of options for demonstrating or exhibiting what has been learnt.

### **Management Strategies**

Teachers can reflect upon their practice by asking themselves:

- Do I focus on the essentials?
- Do I celebrate individual differences?
- Do I assess and instruct inseparably?
- Do I modify content, process and product according to student readiness?
- Do my students engage in 'respectful work' (Do I respect readiness, expect growth, match essential understandings to levels of skill, and provide tasks that are equally interesting, important and engaging?)
- Do I facilitate student learning? Is my classroom student-centred?
- Do I balance group and individual expectations?
- Do I work flexibly in my classroom? Am I flexible in grouping, outcomes, pacing, materials and resources?

### **Principles**

Recognising individual strengths, abilities, qualities, and interests in our gifted and talented students necessitates acknowledgement of physical, intellectual, cultural, and social emotional uniqueness.

## **Process**

Teachers will need to get to know their GT student so they can differentiate effectively.

Teachers must take into account:

- different learning styles
- different rates of learning
- different activities
- different interests
- different expectations
- different motivation
- different outcomes
- different abilities
- different resources
- different reading skills
- different tasks
- different levels of parental support
- different cultures

Teachers must consider the following aspects in their day-to-day teaching:

- Content-what? Concepts, ideas, facts
- Process-how? Methods and strategies
- Product – why? Outcomes

Teachers must:

- Identify the core curriculum
- Assess student knowledge of that content
- Identify and plan core and complex content, basic and higher level processes and a variety of products that are different from the core curriculum and based upon the unique behaviours associated with giftedness.

## **Learning Environment**

For every lesson a teacher teachers they must ask themselves two questions:

1. How do I ensure all students 'know it'? How do I determine that the objectives have been met? How do I assess that the core knowledge, skills and concepts are obtained by all students?
2. What do I provide for those who already have this knowledge, skills, or concepts? Do I:

- Move beyond the core content?
- Do I allow a different path for learning?
- Do I expect different outcomes of learning?

### Reading 3 – Differentiating instruction for advanced learners in the mixed-ability middle school classroom

#### **Rationale**

There is no one learning template for students in any one class. Differentiated instruction can meet these diverse student needs.

Differentiation is not:

- using the same assignment but making some questions more difficult
- marking some students harder
- letting students who finish early play games
- making some children do extra, especially after completing 'regular' work

#### **Content**

Teachers should consider the following adjustments for their classrooms:

- Interest based adjustments – allow students to have a voice in deciding how they will apply the key principles being studied e.g book report, investigation, how it affected another area of learning etc.
- Learning profile adjustments – encourage students to understand their own learning preferences. For example some students may need to talk with others as they work, some prefer to be quiet, some will take quick action, some will need a period to reflect first.
- Readiness based adjustments – can be created by teachers offering students a range of learning tasks.

1. Concrete to abstract
2. Simple to complex
3. Basic to transformational
4. Fewer facets to multi-facets
5. Smaller leaps to greater leaps
6. More structured to more open
7. Less independence to greater independence
8. Quicker to slower

#### **Product**

Differentiation will recognise:

- Readiness levels
- Interests
- Learning profiles

## **Management Strategies**

Teachers who move towards differentiation instruction will be successful if they:

- Have a clear rationale for differentiation
- Prepare students and parents for a differentiated classroom
- Attend to issues of classroom structure and management as they move toward student-centred learning
- Move toward differentiation at a pace comfortable to both teacher and learners
- Plan with team members and other colleagues interested in differentiation

## **Principles**

In a differentiated classroom the teacher will use

- a variety of ways for students to explore curriculum content
- a variety of sense making activities or processes through which students can come to understand and 'own' information and ideas
- a variety of options through which students can demonstrate or exhibit what they have learned

## **Process**

Four characteristics shape teaching and learning in an effective differentiated classroom:

- Instruction is concept focused and principle driven – enables struggling learners to grasp and use powerful ideas and encourages advanced learners to expand their understanding and application of the key concepts and principles.
- On-going assessment of students readiness and growth are built into the curriculum. Teachers continually assess student readiness and interest, extending student exploration.
- Flexible grouping is continually used – students work alone, in groups, in pairs. Tasks are readiness-based, interest based, sometimes constructed to match learning style and sometimes a combination of these. Whole group instruction may be used to introduce new ideas when planning, and for sharing learning outcomes.
- Students are active explorers, teachers guide the exploration. Classrooms are student-centred.
- Goal setting is shared by teachers with students, based on readiness, interest, and learning profile. Assessment is predicated on student growth and goal attainment.

## **Learning Environment**

The successfully differentiation learning environment could also include:

- use of multiple texts and supplementary materials
- use of computer programs
- interest centres
- learning contracts
- compacting
- tiered sense-making activities and tiered products
- tasks and products designed with a multiple intelligence orientation
- independent learning contracts
- complex instruction
- group investigation
- product criteria negotiated jointly by student and teacher
- graduated task and product rubrics

#### Reading 4 – Acceleration: An expanded vision

##### **Rationale**

Acceleration should be an available option for all gifted and talented students. Acceleration may be defined as progressing through educational programs faster or at a younger age than conventional. It may also be defined as 'curriculum flexibility.'

Acceleration is a practical means of matching talented student's educational needs, facilitating the development of study skills, and independent learning and establishing more realistic self-concepts and achievement motivation.

Acceleration has been proven to improve motivation, scholarship and confidence of gifted students without adversely affecting social and emotional development. However, it should be noted that it is not appropriate for all students.

Acceleration is more effective when combined with other educational options designed to accommodate the learning needs of gifted students.

##### **Content**

Acceleration may include:

- early entrance to school
- grade skipping or achievement placing
- student given material that is considered progress appropriate
- self-paced instruction
- content or subject acceleration
- combined classes
- curriculum compacting
- telescoping curriculum (student spends a shorter time than normal in a course of study)
- mentorships

- extra curricular programs
- concurrent enrolment (taking a course at one level and receiving credit for successful completion of a parallel course at a another)
- advanced placement (student takes a course in secondary school that prepares them for taking an examination that can confer university credit)
- credit by examination (student receives credit upon successful completion of an examination)
- correspondence courses (student takes higher level course by mail etc)
- early entrance into secondary school or university

## **Product**

Acceleration can have the following positive benefits:

- Increased learning efficiency
- Increased learning effectiveness
- Recognition of abilities and accomplishments
- Increased options for academic exploration
- Exposure of student to a new peer group
- Administrative economy
- Increased time for careers
- Increased productivity

If acceleration does not occur students may experience:

- Educational frustration and boredom
- Lower achievement and productivity
- Develop apathy toward formal schooling and drop out prematurely
- Lower academic expectations
- Reduced learning motivation and poor study habits
- Difficulties adjusting to peers who do not share advanced interests and concerns

## **Management Strategies**

To enhance the positive effects of acceleration teachers should consider:

- The possibility of accelerating more than one student
- The need for additional program modifications beyond acceleration
- Choosing a teacher who positively supports acceleration, has the ability to modify the curriculum appropriately for gifted learners
- Prior to acceleration, opportunities should be provided for students to interact socially with older students to help them feel comfortable with their new peer group

## **Principles**

Acceleration is the process of bringing gifted and talented students to a suitable level of instruction, commensurate with their achievement levels and readiness so that they are properly challenged to learn.



Acceleration should refer to the rapid rate of a child's cognitive development, not the educational intervention provided. What teachers provide in the name of acceleration is appropriate curriculum and services at a level commensurate with gifted child's readiness and need.

Acceleration has the potential to enhance creativity, outstanding achievement and higher-order thinking skills. Gifted students are frequently socially mature, seek older friends and exhibit social understanding and interests well beyond their age.

## **Process**

Most common forms of acceleration currently practiced include:

- early school entry
- grade skipping or advancement
- content or subject acceleration

When considering candidates grade advancement teachers would consider

1. Compiling a psychological evaluation of the child's intellectual abilities, academic achievements and social-emotional adjustment.
2. Children with an IQ of 130+
3. Children who demonstrate skill levels above the mean of the desired grade
4. Socially and emotionally the child should have demonstrated an absence of any adjustment problems. Also the child should be highly task committed and motivated to learn.
5. The child should be good health.
6. Parents must have positive attitudes towards acceleration.
7. The receiving teacher must be enthusiastic about acceleration and willing to assist the child in the new situation.
8. The child's advancement should occur at natural transition points e.g beginning of the school year
9. Grade advancement should be considered on a trial basis
10. Care should be taken to avoid creating excessive expectations from grade advancement. The child should not be made to feel a failure if the move does not go well.

## **Learning Environment**

Vital components of good acceleration programs include grouping, individualisation, in depth enrichment and counselling. Specifically they include:

- Affective needs of gifted students
- Need for peer interaction and discussion

- Necessity of re-organising the curriculum to ensure that it is appropriate for the gifted
- Need for diversity in teaching and learning experiences